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| 10/643,567 | 08/19/2003 | Tongbi Jiang | 303.343US8 | 4912 |

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EXAMINER

LAMB, BRENDA A

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| ART UNIT | PAPER NUMBER |
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1734

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,567

Applicant(s)

JIANG ET AL.

Examiner

Brenda A. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 and 8-11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-13, 43 and 46-49 of copending Application No. 10/630,544. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application No. 10/630,544 claims a semiconductor die stencil to assist in application of a printable adhesive in a desired pattern onto a semiconductor die comprising: a sheet of material, the sheet having a top surface and a bottom surface to face the die, the sheet of material being impervious to a printable adhesive applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive; and a coating applied to the bottom surface of the sheet to retard spreading of the printable adhesive onto the bottom surface of the sheet without obstruction of the flow of printable adhesive through the apertures onto the die. Thus claims 1 and 8 are obvious over the copending application No. 10/630,544. With respect to claim 2 and 9, copending application No. 10/630,544 claims both the coating and the material have a surface tension, the surface tension of the coating being less than the surface tension of the material. With respect to claims 3 and 10, copending application No. 10/630,544 claims the

surface tension of the coating is at least an order of magnitude less than the surface tension of the material. With respect to claims 4 and 11, copending application No. 10/630,544 claims the coating is a polymeric material.

Claims 1-4 and 8-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S. Patent No. 6,607,599 (Jiang et al) or claims 1-15 of U.S. Patent No. 6,599,365 (Jiang et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because Jiang et al claims a semiconductor die stencil to assist in application of a printable adhesive in a desired pattern onto a semiconductor die comprising: a sheet of material or stencil pattern, the sheet having a top surface and a bottom surface; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive; and a coating applied to the bottom surface of the sheet to retard spreading of the printable adhesive onto the bottom surface of the sheet. Jiang et al fails to claim that the sheet of material is impervious to the adhesive but the claimed stencil or sheet of material which is stainless steel is impervious to adhesive. Jiang et al is silent to the coating being applied to the bottom of the sheet in a manner so as to obstruct of the flow of printable adhesive through the apertures onto the die and thereby reads on the claimed negative limitation of coating the sheet of material without obstruction of the adhesive through the apertures of the sheet. Thus claims 1 and 8 are obvious over Jiang et al. With respect to claim 2 and 9, Jiang et al claims both the coating and the material have a surface tension, the surface tension of the coating being less than the surface tension of the material. With respect to claims 3 and 10, the surface tension of the coating which is claimed as being polytetrafluoroethylene is at least an order of magnitude less than the surface tension of the

material which is claimed as stainless steel. With respect to claims 4 and 11, Jiang et al claims the coating is a polymeric material.

Claims 1-4 and 8-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-77 of U.S. Patent No. 6,669,781 (Jiang et al) or claims 1-24 of U.S. Patent No. 6,641,669 (Jiang et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because Jiang et al claims a stencil/screen/pattern to assist in application of a printable adhesive in a desired pattern onto a substrate comprising: a sheet of material or stencil pattern, the sheet or pattern having a top surface and a bottom surface; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive; and a coating applied to the bottom surface of the sheet to retard spreading of the printable adhesive onto the bottom surface of the sheet. Jiang et al fails to claim that the sheet of material is impervious to the adhesive but the claimed stencil or sheet of material which is stainless steel is impervious to adhesive. Jiang et al is silent to the coating being applied to the bottom of the sheet in a manner so as to obstruct of the flow of printable adhesive through the apertures onto the die and thereby reads on the claimed negative limitation of coating the sheet of material without obstruction of the adhesive through the apertures of the sheet. Jiang et al is capable of its end use as a semiconductor stencil since it claims every structural element of the claimed stencil. Thus claims 1 and 8 are obvious over Jiang et al. With respect to claim 2 and 9, Jiang et al claims both the coating and the material have a surface tension, the surface tension of the coating being less than the surface tension of the material. With respect to claims 3 and 10, the surface tension of the coating which is claimed as being polytetrafluoroethylene is at least an order of magnitude less than the surface

tension of the material which is claimed as stainless steel. With respect to claims 4 and 11, Jiang et al claims the coating is a polymeric material.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 59-76868.

Japan '868 teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of metal material which is impervious to a printable material or adhesive applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to surfaces of the sheet of material including bottom surface of the sheet to retard spreading of the printable material onto surfaces of the stencil including the bottom surface of the sheet. Japan '868 is silent as to the obstruction of the flow of printable material through the apertures and thereby reads on the negative limitation that the material flows without obstruction of the flow of printable material through the apertures. Japan '868 teaches the coating is a polymeric material which within the scope of claims 8 and 11, specifically tetrafluoroethylene which is identical to that disclosed applicant at page 9 lines 12-22, and the material of construction of the sheet of material is within scope of that disclosed by applicant at page 9 lines 6-11 and thereby inherently reads on the claimed limitations of the coating and the sheet of metal material (surface tension properties) such as set forth in claims 2-3 and 9-10. Japan '868 is capable of the end use of being aligned above the semiconductor die and capable of the end use of assisting in the application of a printable material or a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil as set forth in claims 1-4 and 8-11.

Claims 1-4 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Pryor et al.

Pryor et al teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of aluminum material which is impervious to a

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printable material applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to at least one top or one bottom surface of the sheet to retard spreading of the printable material onto the at least one top or one bottom surface of the sheet. Pryor et al is silent as to the obstruction of the flow of printable material through the apertures and thereby reads negative limitation that the material flows without obstruction of the flow of printable material through the apertures. Pryor et al teaches the coating is a polymeric material which within the scope of claims 8 and 11, specifically tetrafluoroethylene which is identical to that disclosed applicant at page 9 lines 12-22, and the material of construction of the sheet of material is within scope of that disclosed by applicant at page 9 lines 6-11 and thereby inherently reads on the claimed limitations of the coating and the sheet of metal material (surface tension properties) such as set forth in claims 2-3 and 9-10. Pryor et al is capable of the end use of being aligned above the semiconductor die and assisting in the application of a printable material or a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil set forth in claims 1-4 and 8-11.

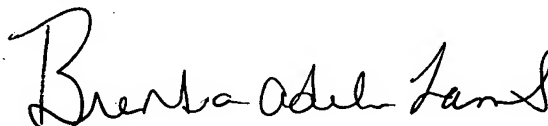
Applicant's arguments filed 6/06/2005 have been fully considered but they are not persuasive.

Applicant's argument that his invention defines over the art of record in that the coating is applied to only one surface of the stencil, the bottom surface, is found to be non-persuasive since it is not commensurate in scope with claim language with the term "comprising" open to coating being applied to other surfaces of the stencil.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda A. Lamb whose telephone number is 571-272-1231. The examiner can normally be reached on Monday and Wednesday thru Friday with alternate Tuesdays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla, can be reached on (571) 272-1231. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script that reads "Brenda A. Lamb".

Brenda A Lamb
Examiner
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